

Amendments to the Specification:

The Abstract is amended as follows:

ABSTRACT

A ~~method for forming~~ spin-valve magnetoresistive read element has a thin conductive lead layer of high sheet conductivity, high hardness, high melting point, high corrosion resistance and lacking the propensity for smearing, oozing, electromigration and nodule formation. Said lead layer is formed upon the hard magnetic longitudinal bias layer of an abutted junction spin-valve type magnetoresistive read head and said read head is therefore suitable for reading high density recorded disks at high RPM.

The reference to Related Patent Applications is amended as follows:

RELATED PATENT APPLICATION

This application is related to Docket No. HT 99-028, Serial No. 09/483937, filing date 1/18/00, now issued as US Patent No. 6,706,421, assigned to the same assignee as the current invention.

This application is also related to Docket No. HT 00-002, Serial No. 09/822,491 filing date 04/02/01 , assigned to the same assignee as the current invention.

Paragraph 1 on page 15 is amended as follows:

Referring now to Fig. 2, there is shown a schematic view of an air bearing surface of a SVMR stack (10) having abutted junctions (12), upon which has been formed a hard magnetic (PM) layer (16) to provide longitudinal bias and, over said layer, a conductive lead layer (18), both formed in accord with the methods of the present invention and the entire fabrication being formed on a substrate (5). The PM layer (16), serving here as an underlayer for the conductor lead layer (18) comprises a seed layer (14), which can be a structure such as Ta(50A)/Cr(50-150A), upon which is formed a layer (15) of hard magnetic material, such as CoPtCr(350-500A). The conductor lead layer (18), formed upon the PM layer so that their close packed planes are both perpendicular to the film plane, comprises a layer of a conducting material such as Rh, or Ir (the Ir having properties in every respect similar to those of Rh), upon which is then formed a capping layer (13) of either Ta or Cr. For example, the PM/conductor configuration could be:

1) Ta(50A)/Cr(100A)/CoPtCr(350-500A)/Rh(350-500A)/Cr(30)

2) Ta(50A)/Cr(100A)/CoPtCr(350-500A)/Ir(360-518A)/Cr(30)

Paragraph 1 on page 16 is amended as follows:

In an alternative embodiment in which the conductive lead layer (18) utilizes includes a Ta interrupt layer (20), the PM layer (16), Ta(50A)/Cr(100A)/CoPtCr(350-500A) remains the same, but the conductive lead layer (18) could be:

3) Ta(50A)/NiCr(50A)/Ru(365-520A)/NiCr(30A)[[.]]

where the Ta (20) is the interrupt layer and the three layer laminate of NiCr (21), Ru (22) and NiCr (23) is formed upon the interrupt layer and completes the lead layer.